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Notice of Allowability

Application No.

09/868,667

Examiner

Wilbert L. Starks, Jr.

Applicant(s)

LANNERT ET AL.

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2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 07/12/2005.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Reasons For Allowance

1. Claims 1-19 are allowed.
2. The following is an Examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fails to teach the claimed invention of a training system, as claimed by Applicant. Specifically, independent claims 1, 10, and 19 disclose a training system that adapts itself to user "characteristics." In the Specification, Applicant specifically defines user "characteristics" as:

A profile is composed of two types of structures: characteristics and collective characteristics. A **characteristic** is a conditional (the if half of a rule) that identifies a subset of the domain that is important for determining what feedback to deliver to the student. Example characteristics include: Wrong debit account in transaction 1; Perfect cost classification; At Least 1 DUI in the last 3 years; More than \$4000 in claims in the last 2 years; and More than two at-fault accidents in 5 years. A characteristic's conditional uses one or more atomics as the operands to identify the subset of the domain that defines the characteristic. An **atomic** only makes reference to a single property of a single entity in the domain; thus the term atomic.

Example atomics include: The number of DUI's ≥ 1 ; ROI $> 10\%$; and Income between \$75,000 and \$110,000. A **collective** characteristic is a conditional that uses multiple characteristics and/or other collective characteristics as its operands. Collective characteristics allow instructional designers to build richer expressions (i.e., ask more complex questions). Example collective characteristics include: Bad Household driving record; Good Credit Rating; Marginal Credit Rating; Problems with Cash for Expense transactions; and Problems with Sources and uses of cash. Once created, designers are able to reuse these elements within multiple expressions, which significantly eases the burden of creating additional profiles. When building a profile from its elements, atomics can be used by multiple characteristics, characteristics can be used by multiple collective characteristics and

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profiles, and collective characteristics can be used by multiple collective characteristics and profiles. See, Applicant's Specification, pg. 9, last paragraph and pg. 10, first paragraph.

The closest prior art of Goodovsky (U.S. Patent Number 6,807,535 B2; dated 19 OCT 2004; class 706; subclass 003) teaches a training system but fails to teach or suggest the "user characteristics" as defined in Applicant's Specification. To the extent that this feature is not present in the prior art cited by Examiner, the present case is allowed.

Regarding the 101 issues in the case, Examiner will now seek to clarify the record regarding the issued, arguments, and decisions in this case.

The first issue: Artificial Neural Networks (ANNs) are not statutory unless trained with real-world data. This raises an interesting quandary: Why would Biological Neural Networks (BNNs) be statutory if the subject of training is not specified?

Well, 2 reasons:

1. ANNs are not necessarily "hardware" and could be computer programs per se or algorithms. BNNs, at least at this point in technology, are necessarily "hardware" systems...the BNN, in this application, is a "substance" that is transformed outside of the computer by "training" (i.e., a transformation of physiological brain states.)
2. ANNs can be installed in virtually anything. Therefore, the final invention remains unknown until more details about the practical application are known. The BNNs in Applicant's invention reside exclusively in humans. Therefore, an invention regarding the training of a human is one invention

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and the process remains the same regardless of the human and regardless of the subject. It, therefore, satisfies the policy and doctrine behind 101.

On these bases, Examiner finds that the present invention satisfies 101.

Examiner commends Applicant's arguments in this case and thanks Applicant for his patience in resolving these issues.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

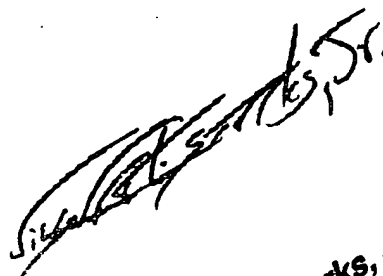
S. P. E. Anthony Knight (571) 272-3687

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WLS

~~10 July 2004~~

31 AUG 2005



Wilbert L. Starks, Jr.
Primary Examiner
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